

REMARKS

The Final rejection mailed March 20, 2009, and the prior art relied upon therein have been carefully reviewed. The claims are amended above to correct a clerical error in claim 1 and to incorporate the dependent portion of claim 16 into claim 15, thereby in effect rewriting claim 16 in independent form as amended claim 15. Applicant believes and respectfully submits that the claims define novel and unobvious subject matter and therefore should be allowed. Favorable reconsideration and allowance are earnestly solicited.

Claims 1 and 15 have been objected to as containing the same typographical or clerical error. These have been corrected above, whereby withdrawal of the objection is in order and is respectfully requested.

Claims 15-20 have been rejected under the second paragraph of §112 as lacking insufficient basis for certain terms. This rejection is respectfully traversed.

First, Applicant believes that the claims as finally rejected, especially when considered in light of Applicants' specification (fully consistent with the law), would not have been confusing to those skilled in the art, and therefore the claims in their previous form are fully in accordance with §112. At **worst**, the criticized language

in its previous form might be considered objectionable, but only as to form, requiring no substantial amendments relating to patentability.

Nevertheless, in deference to the Examiner's views and to avoid or minimize needless argument, a number of cosmetic amendments have been made. These amendments are of a formal nature only, i.e. made to place the claims in improved form for U.S. practice. Such amendments are not "narrowing" amendments because the scope of claims has not been reduced in these regards. No limitations have been added in these regards and non are intended.

As noted above, claim 15 has been further amended to incorporate therein the dependent part of claim 16, whereby claim 15 now more clearly calls for a second marker element.

Withdrawal of the rejection is in order and is respectfully requested.

Claims 1-6 and 8-10 have been rejected as obvious under §103 from Augthun et al 2003/0170588 (Augthun), newly cited and applied, in view of Gelb USP 5,208,845 (Gelb). This rejection is respectfully traversed.

First, it should be noted that the aim of Augthun and the technology used to manufacture a dental prosthesis that has to be fixed to an implant is completely different from those of the present invention. In Augthun, a so-called impression post (23) is fixed to an implant

previously introduced in the jawbone. Subsequently, an impression of the teeth is prepared wherein the top portion (25) of the impression post (23) is surrounded by a viscous and curable mass (see paragraph [0042]). After the curing process, an impression tray containing the impressing mass together with the impression post (23) is removed from the teeth and from the implant (1).

In this way Augthun acquires an impression mass with an impression of the teeth containing the impression post (23). In the technology used by Augthun, a physical model of the jaw with the teeth is fabricated on basis of this impression mass. This physical model is mostly made from plaster. The dental technician starts from this plaster model for manufacturing a dental prosthesis. In order to know the exact positions of the implants in this plaster model, Augthun fixes so-called lab implants (1L) to the impression posts (23) contained in the impression mass. When the plaster model is made, the lab implants (1L) are introduced in the plaster such that the position of these lab implants (1L) in the plaster model correspond precisely to the position of the real implants (1) in the jawbone. The dental technician thus can take into account the position of the lab implants (1L) when manufacturing the dental prosthesis that has to be fixed to the implants (1) present in the jawbone.

Thus, Augthun determines the position of the dental implants by making an impression of the impressions posts (23) that are fixed to the implants and by fixating

the position of these impressions posts (23) in the cured impression mass.

The rod device (32) with a marker (32a) of Augthun only serves to control the correct position of the impression post (23) in relation to the corresponding implant (1) or, possibly in relation to the lab implant (1L). Contrarily as indicated by the examiner, the rod device (32) with a marker (32a) of Augthun thus has nothing to do with determining the position of a marker element in relation to the jaw, nor with identifying the position of the implant in relation to the jaw.

Recognizing some deficiencies in Augthun, the Examiner relies on Gelb as allegedly making up for such deficiencies, and the Examiner then holds that it would have been obvious to a person of ordinary skill in the art at the time the present invention was made to have modified Augthun by what is taught by Gelb, thereby reaching the subject matter of the rejected claims. Applicant respectfully disagrees.

Gelb discloses a method for controlling the depth of a borehole in a jaw by inserting a depth gauge (24) into the borehole and generating an X-ray image of the gauge in the jaw. The depth gauge has reduced diameter sections that are used as markers and that are indicating the depth of the borehole in the jawbone. Gelb does not disclose a method for identifying the position of implants in relation to the jawbone after the implants have been introduced into the jawbone.

Augthun and Gelb thus concern different steps in the procedure for manufacturing a dental prosthesis. Gelb relates to the procedure up to the introduction of the implants in the jawbone, whereas Augthun relates to the procedure of making a dental impression taking into account the position of the implants already introduced in the jaw for generating a physical model of the jaw.

One skilled in the art would not combine Augthun and Gelb since there is no reason to combine these documents, and indeed it makes no sense to do so. Moreover, the aim of Augthun is to avoid the use of X-ray images (see paragraph [0007]), whereas Gelb relates to a method that makes use of X-rays. Thus, not only is there no reason for combining Augthun and Gelb, but Augthun leads away from using X-ray, making Augthun incompatible with Gelb.

Thus there is no reason that would have prompted a person of ordinary skill in the relevant field to combine the Augthun and Gelb in any way, let alone in a way corresponding to the claimed new invention.

Further, combining the teachings of Augthun and Gelb would not have suggested to one of ordinary skill in the art to determine the position of the implant relative to the jaw from the observed position of the marker element in relation to the jaw. This is so because, as already mentioned, Gelb teaches to determine the depth and orientation of a borehole in the jaw and Augthun teaches to

control the correct position of the impression post in relation to the corresponding implant.

It is clear that neither of the applied documents teaches or suggests determining the position of an implant already present in the jaw relative to this jaw. The combination of Authun and Gelb does not render the independent claim 1, and also not claims 2-6 and 8-10, obvious.

The combined teaching of the prior art does not, in particular, teach, nor suggest, to generate an image of the jaw wherein the jaw contains an implant onto which a marker element is fixed, wherein the position of the marker element in relation to the jaw is determined and wherein the position of the implant is identified from the observed position of the marker element in relation to the jaw.

Withdrawal of the rejection is in order and is respectfully requested.

Claims 7 and 21 have been rejected under §103 as obvious from Augthun in view of Gelb and further in view of previously relied upon Hattori. This rejection is respectfully traversed.

Claims 7 and 21 depend directly or ultimately from claim 1, and thus incorporate the subject matter of claim 1. Augthun in view of Gelb does not meet the claim 1 part of claims 7 and 21 for the reasons pointed out above, and

Hattori does not make up for the deficiencies of the proposed combination of Augthun in view of Gelb.

While Hattori discloses a surgical stent (35) having multiple markers (57), the stent and markers are not fixed to the implant and are only used for determining the positions and directions of drilling operations (col. 7, lines 11-38) prior to introduction of the implants into jawbone.

In Hattori, the surgical stent with the multiple markers is removed before the implants are introduced in the jawbone such that the markers of the stent do not allow the worker to determine the angular position of the implants in relation to their central axis. Thus it is not possible with Hattori to determine the angular position of an implant after it has been introduced into the jawbone.

The combination of Augthun, Gelb and Hattori, even if such a combination were obvious, respectfully denied, would not teach or make it obvious to determine the position of an implant that has been introduced in the jaw in relation to this jaw. The combination of these documents certainly does not make it obvious to determine the angular position of the implant.

Thus one having ordinary skill in the art would not be able to modify Augthun in view of Gelb further in view of Hattori to arrive at the invention by duplication of working parts of the device disclosed in one of these documents of Augthun, Gelb or Hattori.

To briefly summarize, the proposed modification of Augthun by Hattori makes no sense, and the proposed combination is taught only by Applicants' specification which was not available to the person of ordinary skill in the art at the time the present invention was made.

Moreover, the proposed combination, even if it were obvious (respectfully denied), could not reach the present invention because none of the citations makes it obvious to determine the position of an implant that has been introduced in the jaw in relation to the particular jaw in question.

Withdrawal of the rejection is in order and is respectfully requested.

Claims 15-17, 19 and 20 have been rejected as obvious under §103 from Augthun in view of Hattori, and claim 18 has been rejected as obvious under §103 from Augthun in view of Hattori and further in view of Biscup 2005/0059972. These rejections are respectfully traversed.

Claim 15, and thus all of claims 15 and 17-20 call for a support, and Applicant does not see that any of the references relied upon have any such support. As none of the references show any such support, no possible combination of the references can reach the claimed subject matter. Even if the proposed combinations where obvious, respectfully not admitted, the proposed reconstructions would not reach the subject matter of claim 15.

In particular, the support of claim 15 is provided with means at one far end to be fixed to the implant in a detectable way. Such support comprises a marker element at its other end. The support comprises a sleeve with a protrusion having dimensions corresponding closely to those of a recess provided in a head of the implant on which the support is to be fixed, and the sleeve of the support has a second marker element. Such a support cannot be put together in an obvious way from the references cited and applied.

Withdrawal of the rejection is in order and is respectfully requested.

Respectfully submitted,

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